Small Business Innovation Research/Small Business Tech Transfer

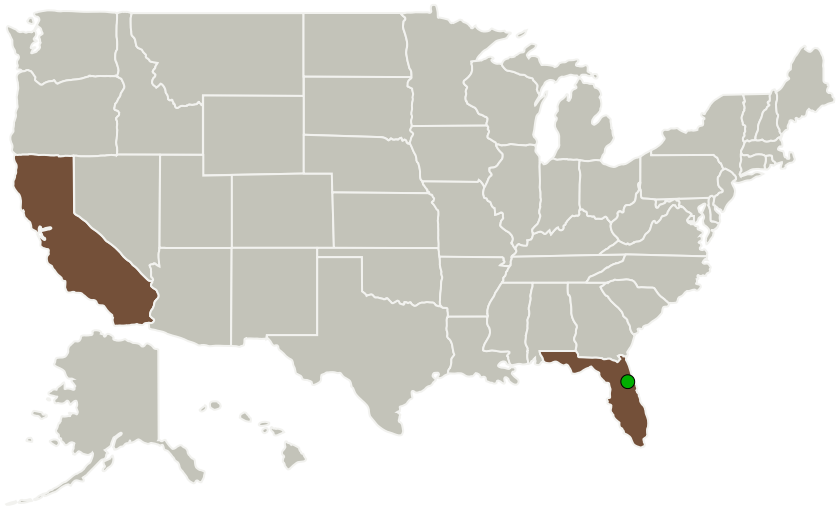
Task-Specific Asteroid Simulants for Ground Testing, Phase II

Completed Technology Project (2016 - 2018)

Project Introduction

The project will produce at least four asteroid simulants at high fidelity for mineral content and particle size, created through standardized inputs and documented processes. In addition to making simulant available at moderate cost compared to duplicative individual efforts, this initial library of pedigreed asteroid simulants will enable researchers and technology developers to compare their results with others using the library, and with their own previous experiments using the library. The downside of uncoordinated, undocumented, dissimilar simulants is the wasting of time and financial resources, as well as the risk of misleading results from the use of inappropriate or low-fidelity materials.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Deep Space Industries, Inc.	Lead Organization	Industry	San Jose, California
Kennedy Space Center(KSC)	Supporting Organization	NASA Center	Kennedy Space Center, Florida

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Primary U.S. Work Locations	
California	Florida

Project Transitions

June 2016: Project Start

June 2018: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/139610)*

Images

Briefing Chart Image
Task-Specific Asteroid Simulants for Ground Testing, Phase II
(https://techport.nasa.gov/image/126945)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Deep Space Industries, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

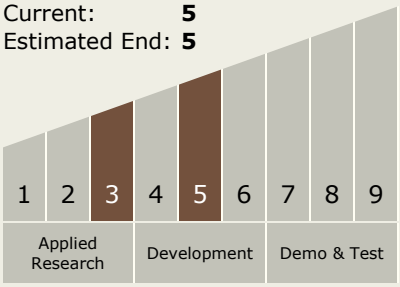
Carlos Torrez

Principal Investigator:

John S Lewis

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX07 Exploration Destination Systems
  - TX07.1 In-Situ Resource Utilization
    - TX07.1.2 Resource Acquisition, Isolation, and Preparation

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System